

Ken Rutchey

Resume of

Ken Rutchey
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Summary of Experience

During the past twenty-five years of work as employee for the South Florida Water Management District, I have acquired a good understanding of the ecological problems facing South Florida and how they relate to water management. I have gained experience by working in programs which were designed to analyze some of these problems, such as the WCA2A Drawdown Study, Loxahatchee River Corridor Study, Everglades vegetation mapping projects, Modified Water Deliveries Projects, Tree Island Research Program, and phosphorous threshold studies. I have acquired a good understanding of the Divisional/Departmental structure of the District and how it works in solving water related problems. I have become proficient in computer systems, having served as troubleshooter, teacher, and computer liaison for the old Environmental Sciences Division. My efforts and interests for the last nineteen years have been in the vegetation mapping of wetlands using GIS, GPS, image processing/remote sensing, and analog and digital photo-interpretation techniques.

Occupational Objective

To further my career by utilizing my background experience in ecology, management and computer skills to contribute to the overall productivity and environmental integrity of the South Florida Water Management District.

Work History

May 2005 to present

Lead Environmental Scientist – Everglades Division
Supervisors: Jamie Serino/Tom Dreschel
Responsible for the CERP RECOVER vegetation mapping project

June 2001 to April 2005

Sr. Supervising Environmental Scientist – Everglades Division
Supervisors: Bill Nuttle/Dean Powell/Shawn Scully/Jamie Serino
Responsible for the Landscape Analysis, Mapping and Data Automation Group in the Everglades Division

April 94 to May 2001

Senior Environmental Scientist - Everglades Department/Division
Supervisor: Fred Sklar/Dewey Worth

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April 89 to March 94

Staff Environmental Scientist - Environmental Sciences/Everglades Systems Research

Supervisors: Dewey Worth/Jayantha Obeysekera/Fred Sklar

January 86 to April 89

Environmental Scientist - Environmental Sciences Division

Supervisor: Dewey Worth

January 85 to January 86

Technician III - Environmental Sciences Division

Supervisor: Dewey Worth

January 83 to January 85

Technician II - Environmental Sciences Division

Supervisor: Dewey Worth

January 81 to January 83

Technician I - Environmental Sciences Division

Supervisor: Dewey Worth

Peer Reviewed Publications

Rutchey, K., T. N. Schall, and F.H. Sklar, submitted. Development of a Water Conservation Area-2A Vegetation Map for Everglades Restoration. *International Journal of Applied Earth Observation and Geoinformation*.

Rutchey, K., T.N. Schall, R.F. Doren, A. Atkinson, M.S. Ross, D.T. Jones, M. Madden, L. Vilchek, K.A. Bradley, J.R. Snyder, J.N. Burch, T. Pernas, B. Witcher, M. Pyne, R. White, T.J. Smith, J. Sadle, C.S. Smith, M.E. Patterson, and G.D. Gann, 2006. Vegetation Classification for South Florida Natural Areas. *USGS Open File Report 2006-1240*, Saint Petersburg, Florida.

Wu, Y. K. Rutchey, N. Wang, and J. Godin, in press. The Spatial Pattern and Dispersion of *Lygodium microphyllum* in the Everglades Wetland Ecosystem. *Biological Invasions*.

Wu, Y., N. Wang, and K. Rutchey, in press. An Analysis of Spatial Complexity of Ridge and Slough in the Everglades Ecosystem. *Ecological Complexity*.

Sklar, F. H., M. J. Chimney, S. Newman, P. McCormick, D. Gawlik, S. Miao, C. McVoy, W. Said, J. Newman, C. Coronado, G. Crozier, M. Korvela, and K. Rutchey, 2005. Coupled Ecological-Societal Underpinnings of Everglades Restoration. *Front Ecol Environ*, 3(3): 161-169.

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Smith, S. M., D. E. Gawlik, K. Rutchey, G. E. Crozier and S. Gray, 2003. Assessing drought-related ecological risk in the Florida Everglades. *Journal of Environmental Management*, 65(4):355-366.

Wu, Y., K. Rutchey, W. Guan, L. Vilchek and F. H. Sklar, 2002. Spatial Simulations of Tree Islands for Everglades Restoration, In: *Tree Islands of the Everglades* (F.H. Sklar and A. van der Valk, eds.) Boston, MA: Kluwer Academic Publishers, chapter 16.

Bancroft, T. G., Gawlik, D. E., and K. Rutchey, 2002. Abundance of Wading Birds Relative to Vegetation and Water Depths in the Northern Everglades, *Waterbirds*, 25(3):265-277.

Rutchey, K., and D. Worth, 2001. Development of a Generic AML Contouring Tool Utilized to Evaluate Everglades Restoration Alternatives, *ArcUser*, July-September 2001, p22-23.

Rutchey, K., and L. Vilchek, 1999. Air Photo-Interpretation and Satellite Imagery Analysis Techniques for Mapping Cattail Coverage in a Northern Everglades Impoundment, *Journal of Photogrammetric Engineering and Remote Sensing*, 65(2):185-191.

Doren, R. F., K. Rutchey and R. Welch, 1999. The Everglades: A Perspective on the Requirements and Applications for Vegetation Map and Database Products, *Journal of Photogrammetric Engineering and Remote Sensing*, 65(2):155-161.

Jones, D.T., M. Madden, J. Snyder and K. Rutchey, 1999. A Vegetation Classification System for Southern Florida's National Parks and Preserves, South Florida Natural Resources Center Technical Report, Everglades National Park, National Park Service, U.S. Department of the Interior, Homestead, Florida.

Newman, S., J. Schuette, J. B. Grace, K. Rutchey, T. Fontaine, K. R. Reddy, and M. Pietrucha, 1998. Factors Influencing Cattail Abundance in the Northern Everglades, *Aquatic Botany*, (60):265-280.

Obeysekera, J., and K. Rutchey, 1997. Selection of Scale for Everglades Landscape Models, *Landscape Ecology*, 12(1):7-18.

Wu, Y., Sklar, F., and K. Rutchey, 1997. Analysis and Simulations of Fragmentation Patterns in the Everglades, *Ecological Applications*, 7(1):228-276.

Wu, Y., Sklar, F., Gopu, K., and K. Rutchey, 1996. Fire Simulations in the Everglades Landscape using Parallel Programming, *Ecological Modeling*, 93:113-124.

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Jensen, J., K. Rutchey, M. Koch, and S. Narumalani, 1995. Inland Wetland Change Detection in the Everglades Water Conservation Area 2A Using A Time Series of Normalized Remotely Sensed Data, *Journal of Photogrammetric Engineering and Remote Sensing*, 61(2):199-209.

Rutchey, K., and L. Vilchek, 1994. Development of an Everglades Vegetation Map Using a SPOT Image and the Global Positioning System, *Journal of Photogrammetric Engineering and Remote Sensing*, 60(6):767-775.

District Publications

Rutchey, K., L. Vilchek, and Matt Love, 2005. Development of a Vegetation Map for Water Conservation Area 3, (Technical Publication ERA #421), West Palm Beach, FL: South Florida Water Management District.

Gray, S., T. Bates, K. Rutchey, K. Havens, P. McGinnes, T. Bechtel, N. Iricanin, J. Bucca, M. Padgett and L. McCarthy. Chapter 7: Environmental and Economic Impacts. In 2000 - 2001 Drought in South Florida, South Florida Water Management District, West Palm Beach, FL.

Rutchey, K., 1992. The Response of Vegetation and Benthic Macroinvertebrates to Constructed Littoral Habitat in Canal 51, (Technical Memorandum DRE-306), West Palm Beach, FL: South Florida Water Management District.

Thayer, D., M. Bodle, and K. Rutchey. 1990. Melaleuca management plan for south Florida: recommendations from the Melaleuca Task Force. Unpublished report, South Florida Water Management District, West Palm Beach. 25pp.

VanArman, J., and K. Rutchey, 1989. Case Study - Graphics Integration - Image Transfer to a Geographic Information System, Presented at the Thirteenth EDGE Conference in San Diego, California.

Everglades Consolidated and South Florida Ecosystem Restorations Reports

Sklar, F. H., E. Cline, M. Cook, B. Cooper, C. Coronado-Molina, C. Edelstein, M. Ferree, C. Fitz, M. Furedi, B. Garrett, D. Gawlik, B. Gu, S. Hagerthey, M. Kobza, S. Miao, S. Newman, B. Orem, J. Palmer, K. Rutchey, E. Sindhoj, C. Thomas, J. Volin and N. Wang. Chapter 6: Ecology of the Everglades Protection Area. In 2007 South Florida Environmental Report, South Florida Water Management District, West Palm Beach, FL. pp. 50.

Sklar, F. H., M. Cook, E. Call, R. Shuford, M. Kobza, R. Johnson, S. Miao, M. Korvela, C. Coronado-Molina, L. Bauman, J. Leeds, B. Garrett, J. Newman, E. Cline, S. Newman, K. Rutchey, and C. McVoy. Chapter 6: Ecology of the Everglades Protection Area. In

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2006 South Florida Environmental Report, South Florida Water Management District, West Palm Beach, FL. pp. 65.

Sklar, F. H., K. Rutchey, S. Hagerthey, M. Cook, S. Newman, S. Miao, C. Coronado-Molina, J. Leeds, L. Bauman, J. Newman, M. Korvela, R. Wanvestraut, and A. Gottlieb. Chapter 6: Ecology of the Everglades Protection Area. In 2005 South Florida Environmental Report, South Florida Water Management District, West Palm Beach, FL. pp. 43.

Sklar, F. H., C. Coronado-Molina, A. Gras, K. Rutchey, D. Gawlik, G. Crozier, L. Bauman, S. Hagerthey, R. Shuford, J. Leeds, Y. Wu, C. Madden, B. Garrett, M. Nungesser, M. Korvela and C. McVoy. Chapter 6: Ecological effects of hydrology. In 2004 Everglades Consolidated Report, South Florida Water Management District, West Palm Beach, FL. pp. 58.

Sklar, F. H., C. Coronado, G. Crozier, M. Darwish, B. Garrett, D. Gawlik, A. Huffman, M. Korvela, J. Leeds, C. J. Madden, C. McVoy, I. Mendelssohn, S. Miao, S. Newman, R. Penton, D. Rudnick, K. Rutchey, S. Senarath, K. Tarboton and Y. Wu. Chapter 6: Ecological Effects of Hydrology on the Everglades Protection Area. In 2003 Everglades Consolidated Report, South Florida Water Management District, West Palm Beach, FL. pp. 70.

Sklar, F. H., K. Rutchey, D. Gawlik, S. Smith, J. Obeysekera, C. J. Madden, M. Darwish, C. Bevier, S. Krupa, S. Newman, G. Crozier, H. Kumpf, and S. Gray. Chapter 6: Hydrologic Needs - Effects of Hydrology on the Everglades Protection Area (EPA). In 2002 Everglades Consolidated Report, South Florida Water Management District, West Palm Beach, FL. pp. 44.

Sklar, F. H., L. Brandt, D. DeAngelis, C. Fitz, D. Gawlik, S. Krupa, C. Madden, F. Mazzotti, C. McVoy, S. Miao, D. Rudnick, K. Rutchey, K. Tarboton, L. Vilchek, and Y. Wu. Chapter 2: Hydrologic Needs - Effects of Hydrology on the Everglades. In 2000 Everglades Consolidated Report, South Florida Water Management District, West Palm Beach, FL. pp. 39.

Sklar, F. H., C. McVoy, R. Van Zee, D. Gawlik, D. Swift, W. Park, C. Fitz, Y. Wu, D. Rudnick, T. Fontaine, S. Miao, A. Ferriter, S. Krupa, T. Armentano, K. Tarboton, K. Rutchey, Q. Dong, and S. Newman. Chapter 2: Hydrologic Needs: The Effects of Altered Hydrology on the Everglades. In 1999 Everglades Interim Report, South Florida Water Management District, West Palm Beach, FL. pp. 70.

Computer Hardware/Software Background

I have taken course work in 10 day ARC/INFO and five day GRID module classes. ERDAS training includes introduction to image processing, advanced image processing,

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map composition, spatial modeling, and digital ortho module classes. Training on Leica analytical stereoplotter, which included aerotriangulation and photogrammetric data collection software (Microstation and PRO600 packages) to acquire and compile data from aerial photography. I have written technical papers and taught classes in DOS, SYMPHONY, AUTOCAD, WORDPERFECT, SPF and VAX/VMS. I have created architectural house plans with AutoCad which have been approved by Palm Beach County.

Educational Background

Bachelor of Science, 1981, Palm Beach Atlantic College. Graduated Cum Laude. Majored in Biology with minor in Chemistry. Major area of study was South Florida ecology and field biology. Senior research paper and presentation was done on WCA2A Drawdown Study. Took additional courses in computer languages - FORTRAN, BASIC, and COBOL. Received Victor Moore Science Award in 1981 for top graduating science student. Featured in the 1979-80 edition of the National Dean's List. Financed my education through scholarships, government loans and part time work in college biology and chemistry labs. College Workshop volunteer work was done at Perry Oceanographics, where I assisted in lab experiments to generate the production of hydrogen from blue-green algae.

Personal Data

Age, 50. Married. Height, 6'2". Weight, 175 lbs. Excellent health. Interest and hobbies include fishing, nature observation, hiking, guitar, and home building projects.

References

Excellent personal and professional on request.